REFERENCES 75

[35] E. Wen and G. Weber, "Wasmachine: Bring iot up to speed with a webassembly os," in 2020 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops), pp. 1–4, IEEE, 2020.

- [36] A. Hilbig, D. Lehmann, and M. Pradel, "An empirical study of real-world webassembly binaries: Security, languages, use cases," *Proceedings of the Web Conference 2021*, 2021.
- [37] L. Wagner, M. Mayer, A. Marino, A. Soldani Nezhad, H. Zwaan, and I. Malavolta, "On the energy consumption and performance of webassembly binaries across programming languages and runtimes in iot," in *Proceedings of* the 27th International Conference on Evaluation and Assessment in Software Engineering, EASE '23, (New York, NY, USA), p. 72–82, Association for Computing Machinery, 2023.
- [38] N. Mäkitalo, T. Mikkonen, C. Pautasso, V. Bankowski, P. Daubaris, R. Mikkola, and O. Beletski, "Webassembly modules as lightweight containers for liquid iot applications," in *International Conference on Web Engineering*, pp. 328–336, Springer, 2021.
- [39] P. K. Gadepalli, S. McBride, G. Peach, L. Cherkasova, and G. Parmer, "Sledge: A serverless-first, light-weight wasm runtime for the edge," in *Proceedings of the 21st International Middleware Conference*, p. 265–279, 2020.
- [40] I. Bastys, M. Algehed, A. Sjösten, and A. Sabelfeld, "Secwasm: Information flow control for webassembly," in *Static Analysis* (G. Singh and C. Urban, eds.), (Cham), pp. 74–103, Springer Nature Switzerland, 2022.
- [41] T. Brito, P. Lopes, N. Santos, and J. F. Santos, "Wasmati: An efficient static vulnerability scanner for webassembly," *Computers & Security*, vol. 118, p. 102745, 2022.
- [42] F. Marques, J. Fragoso Santos, N. Santos, and P. Adão, "Concolic execution for webassembly (artifact)," Schloss Dagstuhl-Leibniz-Zentrum für Informatik, 2022.
- [43] C. Watt, J. Renner, N. Popescu, S. Cauligi, and D. Stefan, "Ct-wasm: Typedriven secure cryptography for the web ecosystem," *Proc. ACM Program. Lang.*, vol. 3, jan 2019.
- [44] R. M. Tsoupidi, M. Balliu, and B. Baudry, "Vivienne: Relational verification of cryptographic implementations in webassembly," in 2021 IEEE Secure Development Conference (SecDev), pp. 94–102, 2021.

76 REFERENCES

[45] Q. Stiévenart and C. De Roover, "Wassail: a webassembly static analysis library," in Fifth International Workshop on Programming Technology for the Future Web, 2021.

- [46] F. Breitfelder, T. Roth, L. Baumgärtner, and M. Mezini, "Wasma: A static webassembly analysis framework for everyone," in 2023 IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER), pp. 753–757, 2023.
- [47] S. Cao, N. He, Y. Guo, and H. Wang, "WASMixer: Binary Obfuscation for WebAssembly," arXiv e-prints, p. arXiv:2308.03123, Aug. 2023.
- [48] W. Fu, R. Lin, and D. Inge, "Taintassembly: Taint-based information flow control tracking for webassembly," arXiv preprint arXiv:1802.01050, 2018.
- [49] Q. Stiévenart, D. Binkley, and C. De Roover, "Dynamic slicing of webassembly binaries," in 39th IEEE International Conference on Software Maintenance and Evolution, IEEE, 2023.
- [50] Q. Stiévenart, D. W. Binkley, and C. De Roover, "Static stack-preserving intra-procedural slicing of webassembly binaries," in *Proceedings of the 44th International Conference on Software Engineering*, ICSE '22, (New York, NY, USA), p. 2031–2042, Association for Computing Machinery, 2022.
- [51] D. Lehmann and M. Pradel, "Wasabi: A framework for dynamically analyzing webassembly," in *Proceedings of the Twenty-Fourth International Conference on Architectural Support for Programming Languages and Operating Systems*, pp. 1045–1058, 2019.
- [52] S. Narayan, C. Disselkoen, D. Moghimi, S. Cauligi, E. Johnson, Z. Gang, A. Vahldiek-Oberwagner, R. Sahita, H. Shacham, D. Tullsen, and D. Stefan, "Swivel: Hardening WebAssembly against spectre," in 30th USENIX Security Symposium (USENIX Security 21), pp. 1433–1450, USENIX Association, Aug. 2021.
- [53] M. Kolosick, S. Narayan, E. Johnson, C. Watt, M. LeMay, D. Garg, R. Jhala, and D. Stefan, "Isolation without taxation: Near-zero-cost transitions for webassembly and sfi," Proc. ACM Program. Lang., vol. 6, jan 2022.
- [54] E. Johnson, E. Laufer, Z. Zhao, D. Gohman, S. Narayan, S. Savage, D. Stefan, and F. Brown, "Wave: a verifiably secure webassembly sandboxing runtime," in 2023 IEEE Symposium on Security and Privacy (SP), pp. 2940–2955, 2023.
- [55] M. Musch, C. Wressnegger, M. Johns, and K. Rieck, "New kid on the web: A study on the prevalence of webassembly in the wild," in Detection of Intrusions and Malware, and Vulnerability Assessment: 16th International Conference, DIMVA 2019, Gothenburg, Sweden, June 19–20, 2019, Proceedings 16, pp. 23–42, Springer, 2019.